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Psychometric Study of the Interrelationship between Complaint of Pain and Depressive Illnesses

By A. Okasha, A. Sadek, O. Al-Sherbini, M. Refaat and F. Lotaif

ABSTRACT

Who are the patients disposed to use pain as a psychic regulator ? ... An attempt to answer this question was carried out through this work, aiming at studying the possible correlation of pain and depression with specific personality pattern. All the patients in the study were invited to complete : Eysenck Personality Questionnaire (E.P.Q.), D. Scale of Guilford Inventory of Personality factors, and Visual Analogue Scale (Pain-line), to demonstrate the intensity of pain. The study reported that the use of E.P.Q. battery for personality testing and Pain line for pain intensity was of a limited value. However, the D-Scale Guilford's battery may substantiate the diagnosis of depression.

INTRODUCTION

Not only has the prevalence of depression increased, in addition. during the last 20 years or so, a change has also been observed in its symptomatology (Froehlich, 1970). Depression may be concealed by a wide variety of autonomic nervous distrubances and functional disorders related to a particular organ, and may manifest itself chiefly at a somatic level, and is termed "Masked Depression" (Lopez Ibor, 1973). The fact that chronic pain often occurs without a significant physical basis and appears to be a consequence of mood states was emphasized by Stengel (1960), Bradely (1963) and others.

Personality as a subclinical expression of pain and depression :

A knowledge of a patient's personality as it was before the patient became ill is important, as it provides a basis for understanding each individual's way of coping with the stress of illness, liability to emotional breakdown under these circumstances and the likelihood of their dealing effectively with a chronic painful disorder. Knowledge of personality also permits prediction of response to treatment, whether it is physical, psychological, or some combination of both. We all have pain, mild or severe at times, but some people develop persistent complaints related to it. Engel ((1959) coined the term "Pain–prone Patient" to delineate those individuals among whom psychic factors play the first role in the genesis of pain, in the absence as well as in the presence of peripheral lesions. Bradely (1963), Lascelles (1966). Lessé (1967) and Bond (1978) showed that all patients with severe localised pain associated with the depressive syndrome had obsessive personality traits, while Merskey (1965) found that they were more inclined to be hysterical. Pilowsky & Spence (1975) described them in terms of "Patterns of illness behaviour" as having difficulty in expressing their feelings especially those of anger. Sternbach (1975) returned to show that pain complaints are determind by cultural, extroversive factors and also a "degree of neuroticism", and reported that chronic pain patients show somatic preoccupations and reactive depression. Bond (1978) claimed that the relationship between personality, affective disorders, and pain has not been considered other than indirectly. Kielholz (1979) found that masked depressives often show anxious – hypochondriacal characters. Barsky (1979) developed the term "the somatizing patient". Other described characteristics of their behaviour when in pain were; the home tyrant, the addict, the somatizer, the confounder, the hypochondriacs, the problem patients, the masochists, and the chronic complainers.

Psychometric study of the relation between personality, pain and depression :

Lascelles (1966) noted that the differences between depressives, pain patients, and normals on personality questionnaires may be due in part to differences in ages and sex. Bond (1971) discussed the relation of pain to the E.P.Q. and concluded that pain becomes chronic in patients with previously existing neurotic personality and diminishes in those with low N. Scores. He showed that E-dimension determines the freedom with which pain complaints are ammunicate, and L-score indicates a social desirability set when raised with increased N.scores. Merskey (1972) found a link between having an anxious personality and liability to suffer from migraine, and that pain of organic origin and not of psychological origin tends to be associated with high N. scores. Sternbach et al. (1973) agreed with Woodforde & Merskey (1972) in reporting that no significant difference exists between patients with chronic organic pain and those with pain of psychological origin on Middlesex Hospital Questionnaire, E.P.I., or M.M.P.I. But, Bond (1973) and Timmermans & Sternbach (1974) pointed out that patients with chronic organic pain have higher N. scores and normal P. scores that designated an interpersonal alienation characterizing them.

METHODS :

30 female patients suffering from pain associated with other depressive symptoms have been studied from the psychometric aspect, (Gp.A). Two control groups of 30 females, each suffering from different types of depressive illness without pain (Gp.B), and the other group was suffering from organic pain (Gp.C). Beside a complete detailed history and a full physcial, neurological, and psychiatric examination, and the necessary investigations, all patients in the study completed the E.P.Q., the D-scale of Guilford Inventory of Personality Factors, and Pain-line test. On answering the E.P.Q. they were instructed to

"try to disregard your illness when answering these questions and answer "Yes" or "No" according to how you feel or behave when you are your usual self". The Pain-line scale consists of a 10 cm line, at the right end of which are the words "I have no pain at all", and at the left "my pain is as bad as it could possibly be" translated in informal Arabic. Severity of pain is indicated by making a mark on this line. It is a simple, reliable test that gives a subjective assessment of pain (Clark & Spear, 1964; Bond & Pilowsky, 1966; Bond & Pearson, 1969; Pilowsky, 1976; Merskey, 1978).

RESULTS :

I. **On the E.P.Q.** (Tables 1, 2, 3, & 4)

The comparison between the mean scores on N-scale among the three groups showed that there are insignificant differences between the scores on N-scale among the three groups, meaning that the scores obtained were equal as regards this factor. While a statistically significant differences were detected between the mean scores on P-scale among the patients of either group A & C or group B & C. Comparing the mean scores on the same scale recorded by patients of group A & B, a statistically insignificant difference was revealed, indicating that patients of either group A or B differed when compared to those of group C regarding the degree of psychoticism. On E-scale a statistically significant difference was reported either between patients of group A & C or A & B, and a statistically insignificant difference does exist between

TABLE I

Presentation of Patients of the Three Groups on N-P Dimension of E.P.Q.

N-Scale	Gp. A		Gp. B		Gp. C		Total
	No.	%	No.	%	No.	%	
High neuroticism :	14	46.7	11	36.7	16	53.4	41
Average Score :	2	6.6	—	0	1	3.3	3
High psychoticism :	14	46.7	19	63.3	13	43.3	46
Total	30		30		30		90

For N-scale : $X^2 = 4.55$ $P > 0.05$

For P-scale : $X^2 = 2.75$ $P > 0.05$

TABLE II

Comparison between the Mean Scores on N-scale among the Three Groups

	Gp. A	Gp. B	Gp. C
Mean	19.9	19.06	19.32
S.D.	3.34	3.37	3.15
No.	30	30	30
t	—— $t = 0.69$, $P > 0.05$ ——		
	—— $t = 0.97$, $P > 0.05$ ——		
		—— $t = 0.31$, $P > 0.05$ ——	

TABLE III

Comparison between the Mean Scores on P-scale among the Patients of the Three Groups

	Gp. A	Gp. B	Gp. C
Mean	6.7	7.5	5.1
S.D.	3.02	4.84	3.23
No.	30	30	30
t	—— t = 1.99, P < 0.05 ————		
	—— t = 0.77, P > 0.05 ——		
		—— t = 2.26, P < 0.05 ——	

TABLE IV

Comparison between the Mean Scores on E-scale Obtained by Patients of the Three Groups

	Gp. A	Gp. B	Gp. C
Mean	17.4	12.8	11.2
S.D.	7.78	7.11	7.51
No.	30	30	30
t	—— t = 3.15, P<0.05 ————		
	—— t = 2.4, P < 0.05 ——		
		—— t = 0.85, P < 0.05 ——	

those of group B & C regarding the mean scores on E-scale, showing that patients of group A obtained higher scores than those of groups B & C. Distribution of patients of group A according to this personality character revealed 43.3 % of the patients to be more extrovert, 36.7 % showing introversion as a character describing their personalities, and 20 % of them were ambivert. The mean scores on C-scale obtained by patients of the three groups illustrated that there was a

statistically significant difference between the mean scores of group A & B, and between group A & C, with a statistically insignificant difference between the mean scores of group B & C. indicating that patients of group A showed higher impulsivity as a personality character compared to the other two groups. The mean scores of all the groups on the lie scale when compared with each other showed that they all had the tendency to resort to lie much on answering E.P.Q. as indicated by the statistically insignificant differences detected. (illiterate).

II. **D-Scale of Guilford :** (Tables 5 & 6)

A statistically significant difference was found between the mean scores of patients of group A & C, group B & C on this scale. While the difference was insignificant between the mean scores of patients of group A & B. This confirmed that the test substantiated the diagnosis of depression to be more frequent in the first two groups. When the clinical psychiatric diagnosis and the psychometric reports of the D-scale were compared, the test was revealed to be very sensitive to discover the true positive cases (98.8 %) and specific enough to discover the true negative cases of depression in this study (90 %).

TABLE V

Presentation of Patients of the Three Groups on D-scale of Guilford

	Gp. A		Gp. B		Gp. C		
D-scale	No.	%	No.	%	No.	%	Total
High D-score :	30	100	29	96.7	21	70	80
Average D-score :	—	0	1	3.3	8	26.7	9
Low D-score :	—	0	—	0	1	3.3	1
Total	30		30		30		90

For all gps. : $X^2 = 15.45$, $P < 0.05$
For A&B : $X = 1.02$, $P > 0.05$
For A&C : $X = 10.58$, $P < 0.05$
For B&C : $X = 7.68$, $P < 0.05$

TABLE VI

Comparison between the Mean Scores on D-scale Obtained by Patients of the Three Groups.

	Gp. A	Gp. B	Gp. C
Mean	63.5	66.16	44
S.D.	11.91	9.5	14.38
No.	30	30	30
	—— t = 5.74, P < 0.01 ——		
	—— t = 0.96, P > 0.05 ——		
			—— t = 7.04, P < 0.01 ——

TABLE VII

Distribution of Patients of the Groups A&C on the Scores of Pain Line Test.

Pain line	Gp. A		Gp. C		Total
	No.	%	No.	%	
Mild	3	10	4	13.3	7
Moderate	14	46.7	15	50	29
Severe	13	43.3	11	36.7	24
Total	30		30		60
	X^2 = 0.34,		P > 0.05		

III. Visual Analogue Scale (The Pain-line) : (Table 7)

It was found that 3 patients of group A (10%) and 4 cases of group C (13.3 %) reported their pains to be of mild intensity. 14 of group A (46.7 %), and 15 patients of group C (50 %) showed that pain was of moderate intensity. Severe unbearable pain was recorded by 13 patients of group A (43.3 %), and 11 cases of group C (36.7 %). Comparing the mean scores on Pain-line test showed no statistically significant difference between patients of group A & C. So, the degree of pain intensity was found variable in different cases, and did not differ between patients of the pain of depressive origin or that of organic origin.

DISCUSSION :

I. E.P.Q.

Patients were instructed to rate their usual way of feeling or acting and not to remain pre-occupied with their current state of mind because some questions are clearly relevant to the emotional state of depression and probably attract positive replies from most patients regardless of their normal feelings. Comparison between patients of the three groups on the Neuroticism scale indicated that they did not differ in being more neurotic. On the psychoticism scale the difference between patients with organic pain and those of the other two groups indicated that the diagnosis of psychotic depression that was mainly among patients with masked depression with pain or frank depression was completely absent in the group of organic pain, may leave its print and to be responsible for this difference (Eysenck & Eysenck, 1964). Patients of masked depression were more extrovert compared to those with frank depression or organic pain that signifies their ability to complain freely, and could show their inter personal and intrapsychic conflicts more than those of the other two groups. The differences between patients of masked depression and the other two groups on the C-scale point out that they showed more impulsivity or conviction as to the presence of physical illness, that reflects their somatic pre- occupation and inability to accept reassurance of their doctors. The high lie scores obtained by all patients may render the test as a whole unreliable or to regard the values on its scales with scepticism (Eysenck & Eysenck, 1964), but it may be regarded as a normal finding in the illiterate patients, where the tester was compelled to read and translate the meaning of the questions and statements in informal language to be understandable by them. The presence of the tester beside the obstacles in approaching the chronic pain patients and the illiteracy could be responsible for this high lie scores shared by all patients. So, the results on the E.P.Q. should be considered with great caution. In-

spite of these differences on different scales of E.P.Q., it seems that pain usually represents a psychophysiological expression of depression rather than to indicate a specific type of personality that is more prone to express pain with their psychiatric illnesses.

II D-scale of Guilford :

When the high degree of sensitivity and specificity of the D-scale in discovering or excluding the depressive or negative cases is considered with the statistically significant differences between the two groups of masked depression, frank depressive disorders, and the group complaining of organic pain, the value of the use of D-scale as a confirmatory test in the diagnosis of cases of masked depression will be cleared.

III. Pain-line test :

The severity of pain ranged between mild to severe. The statistically insignificant difference between patients of group A & C on this test showed that the intensity of pain is not a feature that can differentiate between patients with depressive or organic pain. So, the pain line test may be of little value to aid the diagnosis of pain associating depression, especially in the illiterate patients.

CONCLUSION :

Depressive pain was found not to occur in special personality. The use of E.P.Q. battery of personality tests, and the pain line test for pain intensity was of a limited value, while, the D-scale of Guilford's battery may add a confirmatory evidence for diagnosis of masked depression.

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الموجـــــز

دراســـة ســـيكومترية عن العـــلاقة بين الألم كشكوى وبين مرض الاكتئاب

قام الباحثون هنا بدراســـة العلاقة بين الألم والاكتئاب وبين الأنماط المميزة للشخصية مستخدمين مجموعة ايزنك فى اختبار الشخصية وكذلك اســـتبار « جلفورد » للشـــخصية ، وأفادت الدراســـــة أن اختبار ايزنك للشخصية وكذلك اختبار « خط الألم » لقياس شدة الألم ليس لها ســـوى فائدة محدودة . أما اســـتبار « جلفورد » فله أهمية كبيرة فى تشـــخيص الاكتئاب .

ABSTRAIT

Une Etude Psychométrique des relations

entre les plaintes de maux et la maladie dépressive

Quel sont les malades qui sont disposés à utiliser les maux comme un régulateur psychique ? A travers ce travail, on a essayé de répondre à cette question. Cette recherche a pour but d'étudier les corrélations possibles entre les maux et la dépression dans de types de personalité spécifique: Tous les patients de cette étude ont été invités à compléter : Eysenck Personality Questionnaire (EPQ), l'échelle D de Guilford Inventory of Personality factors et l'échelle d'analogie visuelle (ligne de maux) pour mettre en évidence l'intensité des maux.

L'étude a rapporté que l'emploi de la batterie de E.P.Q. pour examiner la personalité et la ligne de maux pour mesurer l'intensité des maux a été d'une valeur limitée. Cependant, l'échelle D de la batterie de Guilford a pu justifier le diagnostic de dépression.

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Sex Therapy Compared with Placebo in the Treatment of Impotence

By A. S. El Akabawi and A. Idarous

ABSTRACT

Two groups of patients fulfilling criteria of Secondary Functional Impotence were studied. Two models of therapy were used : A classical drug therapy regime with prostatic massage sessions, and a "talk" therapy model. In the latter approach, patients were seen for 15 brief psychotherapeutic sessions twice weekly in which M & J pleasuring instructions were given to them combining a behavioural and non-directive expressive psychotherapeutic interventions. Results showed no differences in the high rate of improvement. Implications of the experiment using M & J instructions without involving the female partner in a non-western culture are discussed. Conclusions favour the use of the classical medical model with placebo amplifiers and M & J instructions as an educational desensitizing factor in therapy.

INTRODUCTION

Most treatment given to impotent patients by general practitioners and venereologists in Egypt relies on the placebo response. Vitamins, androgen hormones, aphrodisiac preparations and courses of prostatic massage are widely prescribed in university and state hospital OPDS as well as in private practice.

Placebo effect accounts for improvement in impotent patients given drug therapy inspite of the fact that there are usually no definite indications for their use (Frank, 1982, Beecher, 1955).